

**Case 3342*****Phalaena croesella* Scopoli, 1763 (currently *Adela croesella*; Insecta, Lepidoptera): proposed conservation of usage of the specific name**

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**Abstract.** The purpose of this application, under Article 23.9.3 of the Code, is to conserve the widely used specific name *Phalaena croesella* Scopoli, 1763 (currently *Adela croesella*) for a common European fairy moth (family ADELIDAE) by designating a neotype. The current use of the name *P. croesella* is based on a misidentification and this makes it a junior subjective synonym of *Phalaena degeerella* Linnaeus, 1758 (currently *Nemophora degeerella*). It is proposed that all previous type fixations for *Phalaena croesella* Scopoli, 1763 are set aside and a neotype is designated.

**Keywords.** Nomenclature; taxonomy; ADELIDAE; *Phalaena*; *Adela*; *Adela croesella*; *Nemophora degeerella*; fairy moth; Europe.

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1. Scopoli (1763, p. 251) described and figured *Phalaena croesella* from Idrija, Slovenia. The type material is lost and to the best of my knowledge no neotype has ever been designated. The name *P. croesella* (currently *Adela croesella*) is currently used for a common European fairy moth species, resembling in wing pattern *Phalaena (Tinea) degeerella* Linnaeus, 1758 (p. 540) (currently *Nemophora degeerella*) (see Heath & Pelham-Clinton, 1976; Razowski, 1978; Zaguljaev, 1978; Wojtusiak, 1996). During 1871–2004 the name *P. croesella* was consistently used in at least 180 publications, including all major guide books and catalogues (reference list is available from the Commission Secretariat). The original description of *P. croesella* indicates that it is larger ('long. lin. 2') than *P. degeerella* ('long. lin. 2'), has 'violaceae' wings (*P. degeerella*: 'nigrae'), and 'longissimae' antennae (*P. degeerella*: 'longae'). The species that is currently recognised as *Adela croesella* is smaller than *N. degeerella* (wingspan\* 11–14 mm versus 17–23 mm in *N. degeerella*: see Heath & Pelham-Clinton, 1976), has relatively shorter male antennae and darker fore wings with prominent copper lustre. This contradicts the original description and indicates that the current use of the name *P. croesella* is based on a misidentification.

2. Among fairy moths inhabiting Slovenia (list for the former Yugoslavia given by Wojtusiak, 1996) only *Nemophora degeerella* and *Adela croesella* correspond to the description of wing pattern given by Scopoli (1763). It is likely that Scopoli (1763) erroneously identified the species currently known under the name *Adela croesella* as *Phalaena degeerella*, and described true *Phalaena degeerella* as *Phalaena croesella*. The figure of *Phalaena croesella* published by Scopoli (1763) fits better to *Phalaena degeerella*. Thus *Phalaena croesella* Scopoli, 1763 is a junior subjective synonym of *Phalaena degeerella* Linnaeus, 1758.

3. Goeze (1783, p. 146) and de Villers (1789, pp. 510–511), were, to the best of my knowledge, the only authors who used *Phalaena croesella* as the valid name before Zincken (Charpentier & Zincken, 1821, p. 159) unequivocally synonymised *P. croesella* with *N. degeerella*. This synonymy was accepted by Treitschke (1833, p. 131), Duponchel (1838, p. 360), Fischer von Rösslerstamm (1840, p. 189), Zeller (1853, p. 30) and many others. Frey (1880, p. 342) was the last author who referred to this synonymy.

4. Denis & Schiffermüller (1775, p. 143), Hübner (1796, pl. 18, fig. 121) and subsequently several other researchers used the name *P. sulzella* (an incorrect subsequent spelling of *Phalaena sultzella* Linnaeus, 1767 (p. 896)) for the species currently known as *Adela croesella*. However, this was also a misidentification. *Phalaena sultzella* Linnaeus, 1767 is a junior subjective synonym of *Phalaena degeerella* Linnaeus, 1758 (Fabricius, 1775, p. 669). The type material of *Phalaena sultzella* is lost (Robinson & Nielsen, 1983, p. 232).

5. Fabricius (1775, p. 669) used the name *Phalaena podaella* Linnaeus, 1767 (p. 896), which he assigned to his new genus *Alucita*, for the species nearest to *Phalaena degeerella*. However, this taxonomic decision was not followed by subsequent authors, although the name *P. podaella* was sometimes listed among the synonyms of *P. croesella*. Razowski (1978, p. 73) is probably the last author who referred to this synonymy. The type specimens of *P. podaella* have not been discovered in the Linnaean collection (Robinson & Nielsen, 1983, p. 224), and identity of this species remains unclear. Although *Phalaena podaella* Linnaeus, 1767 is the oldest available name for the species currently known as *Phalaena croesella*, it has not been used as a valid name for nearly two centuries, and should be considered a nomen oblitum under Article 23.9.1.1.

6. Esper (1791, pp. 49–51, tab. 2, fig. 3) described *Sphinx fasciata* on the basis of two females from Lyon, France. This name was synonymized with *Phalaena sulzella* by Charpentier (Charpentier & Zincken, 1821, p. 158) and had never been used later as a valid name for the species in question; it should be considered a nomen oblitum under Article 23.9.1.1.

7. Zeller (1839, p. 186) replaced the name *P. sultzella* Linnaeus (spelt *sulzella*) with *Adela (Eutyphia) sulzeriella* without explaining the reason. This replacement was followed in particular by Herrich-Schäffer (1855, p. 103, pl. 32, fig. 227). In contrast, Wocke (1861, p. 108) used the name *P. sulzella*, attributed to Denis & Schiffermüller (1775), and listed both *Adela degeerella* (sensu Scopoli, 1763) and *Adela sulzeriella* Zeller, 1839 as synonyms of *P. sulzella*. Although the name *Adela (Eutyphia) sulzeriella* Zeller, 1839, is also available for the species currently known as *P. croesella*, it has not be used as a valid name after 1899, and should be considered a nomen oblitum under Article 23.9.1.1.

8. Werneburg (1864, p. 239) did not accept the synonymy established by Zincken (in Charpentier & Zincken, 1821, p. 159) and listed *P. croesella* as a valid name. Wocke (1871, p. 274) only partially accepted Werneburg's argument and used *P. croesella* as the valid name for the species next to *P. degeerella*, but listed specimens described by Scopoli (1763) as *Adela degeerella* Linnaeus, 1758 and *Adela sulzeriella* Zeller, 1839 among the synonyms of *Phalaena croesella*. Subsequent major catalogues (Rebel, 1901, p. 245; Meyrick, 1912a, p. 9; Meyrick, 1912b, p. 11) accepted this decision and apparently influenced subsequent use of the name *Phalaena croesella* for

the species distinct from *Phalaena degeerella*. However, the current use of the name *P. croesella* is based on a misidentification, and *Phalaena croesella* Scopoli, 1763 is a junior subjective synonym of *Phalaena degeerella* Linnaeus, 1758. No other names are available for the taxon in question.

9. I propose that the existing usage of the specific name *Phalaena croesella* Scopoli, 1763 is maintained by designating a neotype for *P. croesella*. The most suitable specimen for the neotype is deposited in the Natural History Museum, London, and bears two labels: 5 × 7 mm, black ink 'Croat.[ia] | Man[n]'; 8 × 10 mm, black ink and print 'Zeller Coll. Walsingham Collection 1910–427'.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the nominal species *croesella* Scopoli, 1763, as published in the binomen *Phalaena croesella*, and to designate the specimen proposed in para. 9 above as neotype;
- (2) to place on the Official List of Specific Names in Zoology the name *croesella* Scopoli, 1763, as published in the binomen *Phalaena croesella* and as defined by the neotype designated in (1) above.

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